City of Lafayette Staff Report

For: Lafayette City Council

By: Christine Sinnette, Senior Planner

Date Written: March 3, 2008

Meeting Date: March 10, 2008

Subject: Introduce Ordinance No. 564 revising Chapter 3-9, Gas Shut-Off Devices of the Lafayette Municipal Code (LMC)

Background

In October 2006, the Contra Costa County Board of Supervisors amended the current gas shut-off valve regulations and adopted Ordinance No. 2006-44 requiring the installation of gas shut-off devices in existing residential, commercial, and industrial buildings prior to the sale of those buildings or when additions or alterations valued at more then $15,000 are made. A complete analysis of the new regulations adopted by the County is contained in Attachment CC-2.

The City Council has been reviewing County Ordinance No. 2006-44 and Chapter 3-9, Gas Shut-Off Devices, LMC, since April 2007. During the public hearings, issues related to necessity for gas shut-off devices and their installation prior to the sale of an existing building have been raised. See Attachment CC-3 – Chronology of Chapter 3-9. At the direction of the City Council, these issues have been reviewed and considered by the Lafayette Emergency Preparedness Commission (EPC). The EPC has completed its latest review which is included as Attachment CC-4.

Staff Comment

The purpose of Ordinance No. 564 is threefold (see Attachment CC-1). First, it revises Chapter 3-9, Gas Shut-Off Devices to remove adoption by reference provisions of the Contra Costa County ordinance code for regulations previously adopted by the City in 2000 and 2006.

Second, it incorporates the recommendations of the EPC by removing references to seismic gas shut-off devices, by amending section 3-905(a)(1) to make installation of non-motion excess flow gas shut-off devices downstream of the gas utility meter voluntary, and by amending section 3-905(b) to now require the installation of non-motion excess flow gas shut-off devices only at each connection of a non-fixed appliance to a gas line. The purpose of this Ordinance, a non-fixed appliance is one that is not required by State or local ordinance or by the manufacturer's listing to be braced, anchored, strapped or fastened in place.

Third, it incorporates the provisions of County Ordinance No. 2006-44 as recommended by the EPC including the new threshold valuation of $15,000 for additions or alterations and installation of an excess flow gas shut-off device on a non-fixed appliance in an existing residential, commercial, or industrial building sold on or after July 1, 2008. Although the point of sale clause is being recommended by the EPC, it should be noted that as revised, Ordinance No. 564 no longer requires installation of motion

sensitive/seismic gas shut-off devices at all, installation of excess flow gas shut-off devices (non-motion sensitive) downstream of the gas utility meter is voluntary, and prior to close of escrow, the installation of an excess flow gas shut-off device is only required on non-fixed gas appliances such as stoves and dryers. See Attachment CC-5 – Local Addenda.

Staff contacted Thom Huggett, Senior Structural Engineer of the Lamorinda Building Inspection Office for help in defining a non-fixed appliance. Additionally, he commented on the proposed changes to Chapter 3-9 and County Ordinance 2006-44. He expressed concern about exempting certain appliances because even if the appliance is anchored in place it doesn't guarantee that the gas piping won't be broken in the case of an earthquake. An ordinance that widely differs from the other jurisdictions in the County will lead to inconsistent enforcement and customer complaints. Finally, the excess flow valves which are installed at each appliance are relatively cheap ($10-$20 and up) and easy to install.

Compliance with the California Environmental Quality Act

Adoption of Ordinance 564 and the provisions it contains are exempt from the California Environmental Quality Act (CEQA) pursuant to California Code of Regulations, §15061(b)(3) because this project is covered under the general rule that CEQA applies only to projects that have the potential for causing a significant effect on the environment. Adoption of Ordinance 564 and the administrative code provisions it contains have no potential for causing an effect on the environment.

Conformity with the General Plan, Specific Plans, and the Zoning Ordinance

The proposed adoption of Ordinance No. 564 and its provisions have no effect on the general plan, any applicable specific plans, or the zoning ordinance.

Public Notification and Comment

A notice and summary of the introduction and proposed adoption of Ordinance No. 564 was published in the *Contra Costa Times*, as required by law. Ms. Bielle Moore, a representative of the Board of Realtors, contacted staff about the Ordinance and may be presenting some material to the City Council.

Fiscal Impact

Small, positive fiscal impact as the City would receive a portion of the $62.50 plumbing permit fee.

Recommendation

Introduce Ordinance No. 564 to amend Chapter 3-9, Gas Shut-Off Devices and set a public hearing for March 24, 2008.

Attachments

CC-1 Ordinance No. 564
CC-2 Staff report for October 3, 2006 meeting of the Contra Costa County Board of Supervisors and Contra Costa County Ordinance No. 2006-44 including findings of need for stricter construction standards due to local conditions
CC-3 Chronology of Chapter 3-9, Gas Shut-Off Devices, LMC
CC-4 Emergency Preparedness Commission report to the City Council, dated February 3, 2008
CC-5 Gas Shut-Off Statement of Compliance Local Addenda

BEFORE THE CITY COUNCIL OF THE CITY OF LAFAYETTE

In the Matter of:

Ordinance No. 564

Adoption of revisions to Chapter 3-9, Gas Shut-Off Devices, of the Lafayette Municipal Code, requiring gas shut-off devices in residential, commercial, and industrial buildings

The City Council of the City of Lafayette does ordain as follows:

Section 1. Summary.

This ordinance revises Chapter 3-9, Gas Shut-Off Devices, Lafayette Municipal Code (LMC) by removing adoption by reference provisions of the Contra Costa County ordinance code, by renumbering the sections, and by requiring gas shut-off devices in residential, commercial, and industrial buildings.

Section 2. Revise Section 3-901.

Revise Section 3-901 to read as follows:

This chapter requires approved gas shut-off devices in residential, commercial, and industrial buildings under the conditions contained in this chapter.

Section 3. Revise Section 3-903.

Revise section 3-903 to read as follows:

3-903 Definitions.

For the purpose of this chapter, certain terms shall be defined as follows:

(a) "Downstream of Gas Utility Meter" shall refer to all customer owned gas piping.

(b) "Residential Building" shall mean any single family dwelling, duplex, multifamily dwelling, apartment building, condominium building, townhouse building, lodging house, congregate residence, hotel, or motel.

(c) "Excess Flow Gas Shut-Off Device" shall mean those valves or devices that are not actuated by motion, but are activated by significant gas leaks or overpressure surges, which can occur when pipes rupture inside the structure. The design of the device shall provide a proven method to provide automatically for expedient and safe gas shutoff in an emergency. The design of the device shall provide a capability for ease of consumer or owner resetting in a safe manner. The device shall be certified by the State Architect or the operational and functional design of the device shall meet or exceed the

ATTACHMENT

device certified by the Office of the State Architect. The determination of whether the operational and functional design of the device is at least equal to the device certified by the State Architect may be made by one of the following: the Independent Laboratory of the International Approval Services (IAS), Underwriter's Laboratory (UL), International Association of Plumbing and Mechanical Officials (IAPMO), or other recognized listing and testing agency.

(d) "Non-Fixed Gas Appliance" as used in this chapter, shall refer to a gas appliance that is not required by State or local ordinance or by the manufacturer's listing to be braced, anchored, strapped or fastened in place.

(e) "Upstream of Gas Utility Meter" shall refer to all gas piping installed by the utility up to and including the meter and the utility's bypass tee at the connection to the customer owned piping.

(f) "Gas Shut-Off Device," as used in this chapter, shall refer to an Excess Flow Gas-Shut-Off Device. (Ord. 564 § 3, 2008; Ord. 555 § 3 (part); Ord. 515 § 1, 2000)

Section 4. Add Section 3-905.

Add Section 3-905 to read as follows:

3-905 Scope.

(a) An approved excess flow gas shut-off device (non-motion sensitive) may be installed downstream of the gas utility meter at the beginning of each rigid gas piping system that serves any new or existing residential, commercial, or industrial building. (Ord. 564 § 4, 2008)

(b) An approved excess flow gas shut-off device (non-motion sensitive) shall be installed at each connection of a non-fixed gas appliance to a gas line within any of the buildings specified in this subsection (b). (Ord. 564 § 4, 2008)

(1) In any new building construction (commercial, industrial or residential) containing fuel gas piping for which a building permit is first issued on or after the effective date of this chapter;

(2) In any existing residential building that is altered or added to:

(A) The building has fuel gas piping supplying the existing building or the addition to the building; and

(B) A building permit for the work is first issued on or after the effective date of this ordinance; and

(C) The value of the alteration or addition is either:

(i) More than five thousand dollars ($5,000) where fuel gas piping is involved in the alteration or addition. Alterations or additions to individual condominium or apartment units shall require an approved gas shut-off device to be installed only for each individual condominium or apartment unit that is being altered or added to; or

(ii) More than fifteen thousand dollars ($15,000) where fuel gas piping is not involved in the alteration or addition. Alterations or additions to individual

condominium or apartment units shall require an approved gas shut-of device to be installed only for each individual condominium or apartment unit that is being altered or added to. (Ord. 564 § 4, 2008).

(3) In any existing commercial or industrial building that is altered or added to; and

(A) The building has fuel gas piping supplying the existing building or the addition to the building; and

(B) A building permit for the work is first issued on or after the effective date of this ordinance; and

(C) The value of the alteration or addition is either:

(i) More than five thousand dollars ($5,000) where fuel gas piping is involved in the alteration or addition. Alterations or additions to individual units or tenant spaces shall require an approved gas shut-off device to be installed only for each individual unit that is being altered or added to; or

(ii) More than fifteen thousand dollars ($15,000) where fuel gas piping is not involved in the alteration or addition. Alterations or additions to individual units or tenant spaces shall require an approved gas shut-off device to be installed only for each individual unit that is being altered or added to. (Ord. 564 § 4, 2008; Ord. 555 § 1, 2006; Ord. 515 § 1, 2000).

(4) In any existing residential building that has fuel gas piping supplying the building and the building is sold on or after July 1, 2008. The device specified in subsection (b) shall be installed before the parties to the sale enter into an agreement for sale, or before the close of escrow when an escrow agreement has been executed in connection with the sale. The sale of an individual condominium unit in a building requires the installation of the device specified in subsection (b) only for that individual unit.

(5) In any existing commercial or industrial building that has fuel gas piping supplying the building and building is sold on or after July 1, 2008. The device specified in subsection (b) shall be installed before the parties to the sale enter into an agreement for sale, or before the close of escrow when an escrow agreement has been executed in connection with the sale. (Ord. 564 § 4, 2008).

Section 5. Add Section 3-907.

Add Section 3-907 to read as follows:

3-907 Exceptions.

(a) Gas shut-off devices are not required to be installed downstream of the gas utility meter where gas shut-off devices have been installed by the gas utility or a contractor authorized by the gas utility upstream of the gas utility meter and downstream of the meter service regulator and the installations are in accordance with this chapter and with the manufacturer's specifications.

(b) Gas shut-off devices installed on a building before the effective date of this chapter are exempt from the requirements of this section provided they remain installed on the building or structure and are maintained for the life of the building or structure.

(c) Gas shut-off devices installed on a gas distribution system owned or operated by a public utility are not subject to the requirements of this chapter (Health and Safety Code Section 19201 (b)).

(d) This chapter does not apply to mechanical or process equipment used in manufacturing.

(e) This chapter does not apply to gas shut-off devices installed within gas lines (Health and Safety Code Section 19204). (Ord. 555 § 1, 2006; Ord. 515 § 1, 2000)

Section 6. Add section 3-909.

Add section 3-909 to read as follows:

3-909 General Requirements.

Gas Shut-Off Devices installed either in compliance with this ordinance or voluntarily, with a permit issued on or after the effective date of this ordinance, shall comply with all of the following requirements:

(a) Be installed by a contractor licensed in the appropriate classification by the State of California and in accordance with the manufacturer's instructions.

(b) Be certified by the State Architect or be listed by an approved listing and testing agency such as IAS, IAMPO, UL or the Office of the State Architect. (Ord. 564 § 6, 2008)

(c) Have a thirty (30) year warranty which warrants that the valve or device is free from defects and will continue to operate properly for thirty (30) years from the date of installation.

(d) Where Gas Shut-Off Devices are installed voluntarily or as required by this section, they shall be maintained for the life of the building or structure or be replaced with a valve or device complying with the requirements of this section. (Ord. 515 § 1, 2000)

Section 7. Add Section 3-911.

Add Section 3-911 to read as follows:

3-911 List of Approved Valves and Devices.

The Building Inspection Department shall maintain a list of all Excess Flow Gas Shut-Off Devices (non-motion sensitive) which meet or exceed the requirements of devices certified by the Office of the State Architect for installation in the State of California and which comply with the standards and criteria set forth in Health and Safety Code section 19180 *et seq*,. (Ord. 564 § 7, 2008; Ord. 515 § 1, 2000)

Section8. Add section 3-913.

Add section 3-913 to read as follows:

3-913 Enforcing Agency.
The Building Inspection Department shall administer and enforce the provisions of this ordinance. (Ord. 515 § 1, 2000)

Section 9. Effective Date.

This ordinance becomes effective thirty (30) days after its adoption.

The foregoing ordinance was introduced at a regular meeting of the City Council of the City of Lafayette on March 6, 2008 and was adopted at a regular meeting of the City Council on March 20, 2008, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Mike Anderson, Mayor

ATTEST:

_____
Joanne Robbins, City Clerk

Contra Costa County

TO: **BOARD OF SUPERVISORS**

FROM: CARLOS BALTODANO, DIRECTOR
BUILDING INSPECTION DEPARTMENT

DATE: OCTOBER 3, 2006

SUBJECT: AMENDMENTS TO GAS SHUT-OFF DEVICES ORDINANCE

SPECIFIC REQUEST(S) OR RECOMMENDATION(S) & BACKGROUND AND JUSTIFICATION

RECOMMENDATIONS

1. **ADOPT** Ordinance No. 2006-44 requiring the installation of approved gas shut-off devices in existing residential, commercial, and industrial buildings prior to the sale of those buildings or when additions or alterations valued at more than $15,000 are made to those buildings.

2. **ADOPT** findings of local conditions to justify construction standards stricter than those imposed by Health and Safety Code section 19180 et. seq.

3. **FIND** that adoption of the ordinance is exempt from CEQA pursuant to CEQA Guidelines section 15061(b)(3).

4. **DIRECT** staff to file a Notice of Exemption with the County Clerk.

CONTINUED ON ATTACHMENT: X YES SIGNATURE Carlos Baltodano

__1__ RECOMMENDATION OF COUNTY ADMINISTRATOR ____ RECOMMENDATION OF BOARD COMMITTEE
__✓__ APPROVE ____ OTHER

SIGNATURE(S): Julie Enea

ACTION OF BOARD ON OCT 3 2006 APPROVED AS RECOMMENDED __✓__ OTHER _____

VOTE OF SUPERVISORS

__X__ UNANIMOUS (ABSENT __IV__)
AYES:_____ NOES:_____
ABSENT:_____ ABSTAIN:_____

Contact: Carlos Baltodano **(925/335-1108)**

cc: County Administrator
County Counsel
Building Inspection
Community Development

CB:lg
\bdord\Carlos\Gas Valves\Board Order 09-06

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF AN ACTION TAKEN AND ENTERED ON THE MINUTES OF THE BOARD OF SUPERVISORS ON THE DATE SHOWN.

ATTESTED: October 3 2006

John Cullen, Clerk of the Board of Supervisors and County Administrator

BY _____ DEPUTY

ATTACHMENT CC-2

FISCAL IMPACT

None.

BACKGROUND/REASONS FOR RECOMMENDATIONS

On March 21, 2000 the Board of Supervisors adopted Ordinance NO. 2000-11 which requires gas shut-off devices at gas utility meters. The ordinance allows the homeowner or developer to choose from two different types of devices that are on the market. One is known as the "seismic gas shut off device" or Earthquake Gas Shut-Off Valve (EQGSV). This device shuts off the gas at the meter when activated by a seismic event of 5.1 or greater on the Richter scale. The other type of device, known as a low pressure Excess Flow Valve (EXFV) controls and shuts off the flow of gas into all the pipes in the house in the event of a pipe break on any gas pipe in the structure. These valves provide twenty-four hour protection and automatically reset after a gas line has been repaired. Both of these valves are designed to be installed between the gas meter and the gas entering into the structure.

On July 20, 2004 the Board of Supervisors adopted Ordinance NO. 2004-27 which requires excess flow valves at each appliance.

On May 9, 2006 the Board of Supervisors directed the Director of the Building Inspection Department (BID) to draft an ordinance to require gas shut-off devices on all buildings prior to close of escrow when an escrow agreement has been executed in connection with a sale and to amend the Contra Costa County Gas Shut-off Devices Ordinance 2004-27 to require gas shut-off devices for alterations or additions valued at more than $15,000 instead of $50,000.

Ordinance NO. 2006-44 requires the installation of approved gas shut off devices in existing residential, commercial, and industrial buildings prior to the sale of those buildings, or when additions or alterations valued at more than $15,000 are made to existing residential, commercial, and industrial buildings when fuel gas piping is not involved in the addition or alteration.

The amended Ordinance 2006-44 (Appendix A) and the corresponding findings (Appendix B) are attached. There are presently eight (8) cities within Contra Costa County and two (2) other Bay Area counties that have approved gas shut off valve ordinances (Appendix C).

Natural gas explosions in apartments or homes are not unusual occurrences. A Housing and Urban Development (HUD) report in October 2001 states that on average 400 homes per year are destroyed due to natural gas explosions and fires. The National Fire Protection Agency, in its *"U.S. Home Report – 1993–1997"* determined that natural gas accounts for an annual average of 5,700 home fires, including 385 casualties, and up to $50 million in property damage.

It is estimated that natural gas is used by at least 80% of the California population, especially in urban areas. If we add the additional fact that the United States Geological Society (USGS) predicts a 70% chance of at least one earthquake of 6.7 or greater in the

Bay Area before 2030, then the issue of potential explosions and fires caused by disconnected or broken gas lines becomes an even greater problem.

Educational Component

The Board of Supervisors also requested the Director of the Building Inspection Department to develop an education component. The educational component will be used to educate Real Estate professionals on the new Ordinance, and to promote the installation of gas shut-off devices by property owners, as a safety measure, even if there is not an impending sale of the property. As a part of this educational component the Building Inspection Department has developed the following:

- a brochure for distribution at County offices and home improvement stores(Appendix D)
- a script for an educational video to be shown on the local cable station
- a speakers bureau on the safety and installation of gas shut-off valves for community groups.
- a handout for Real Estate professionals to distribute to prospective sellers and buyers (Appendix E)

It is envisioned that the Building Inspection Department will work closely with area Realtors and Real Estate Organizations to ensure compliance with the ordinance. The BID will coordinate with financial and real estate professionals to develop a checklist of items that need to be completed prior to the close of escrow, including the installation of gas shut-off valves.

Properties Affected

In Contra Costa County for the year of 2005 approximately 22,000 properties were sold. Out of the 22,000 properties that were sold, it is estimated that 45% or 9,900 of these were existing properties as opposed to new properties. That would be almost 10,000 properties that would be better prepared for an earthquake.

California Environmental Quality Act (CEQA)

Staff has determined that adoption of the attached ordinance is exempt from of the California Environmental Quality Act (CEQA) under Section 15061 (b)(3) of the State CEQA guidelines. This ordinance can be seen with certainty to have no effect on the environment. The ordinance will require the installation of devices inside certain structures, which will not result in physical changes to the environment.

ORDINANCE NO. 2006-44

GAS SHUT-OFF DEVICES

The Contra Costa County Board of Supervisors ordains as follows (omitting the parenthetical footnotes from the official text of the enacted or amended provisions of the County Ordinance Code):

SECTION I. SUMMARY. This ordinance amends Section 718-8.204 of the County Ordinance Code to require the installation of approved gas shut-off devices in existing residential, commercial, and industrial buildings prior to the sale of those buildings, or when additions or alterations valued at more than $10,000 are made to existing residential, commercial, and industrial buildings when fuel gas piping is not involved in the addition or alteration.

SECTION II. Section 718-8.204 of the County Ordinance Code is amended to read:

718-8.204 Scope.

(a) The following devices shall be installed at the following locations in the buildings specified in subsection (b):

(1) An approved seismic gas shut-off device (motion sensitive) or an approved excess flow gas shut-off device (non-motion sensitive) shall be installed downstream of the gas utility meter at the beginning of each rigid gas piping system that serves any of the buildings specified in subsection (b); and

(2) An approved excess flow gas shut-off device (non-motion sensitive) shall be installed at each connection of a gas appliance to a gas line within any of the buildings specified in subsection (b).

(b) The devices specified in subsection (a) shall be installed in the following buildings and structures:

(1) In any new building construction (commercial, industrial or residential) containing fuel gas piping for which a building permit is first issued on or after the effective date of this ordinance.

(2) In any existing residential building that is altered or added to; and

(A) The building has fuel gas piping supplying the existing building or the addition to the building; and

(B) A building permit for the work is first issued on or after the effective date of this ordinance; and

(C) The value of the alteration/addition is either:

(i) More than $5,000 where fuel gas piping is involved in the alteration or addition. Alterations or additions to individual condominium or apartment units shall require an approved gas shut-off device to be installed for all gas piping serving the building and a device at each connection of a gas appliance to a gas line in each individual unit that is being altered or added to; or

(ii) More than $15,000 where fuel gas piping is not involved in the alteration or addition. Alterations or additions to individual condominium or apartment units shall require an approved gas shut-off device to be installed for all gas piping serving the building and a device at each connection of a gas appliance to a gas line in each individual unit that is being altered or added to.

(3) In any existing commercial or industrial building that is altered or added to; and

(A) The building has fuel gas piping supplying the existing building or the addition to the building; and

(B) A building permit for the work is first issued on or after the effective date of this ordinance; and

(C) The value of the alteration/addition is either:

(i) More than $5,000 where fuel gas piping is involved in the alteration or addition. Alterations or additions to individual units or tenant spaces shall require an approved gas shut-off device to be installed for all gas piping serving the building and a device at each connection of a gas appliance to a gas line in each individual unit that is being altered or added to; or

(ii) More than $15,000 where fuel gas piping is not involved in the alteration or addition. Alterations or additions to individual units or tenant spaces shall require an approved gas shut-off device to be installed for all gas piping serving the building and a device at each connection of a gas appliance to a gas line in each individual unit that is being altered or added to.

(4) In any existing residential building that has fuel gas piping supplying the building and the building is sold on or after December 1, 2006. The devices specified in subsection (a) shall be installed before the parties to the sale enter into an agreement for sale, or before the close of escrow when an escrow agreement has been executed in connection with the sale. The sale of an individual condominium unit in a building requires the installation of the devices specified in subsection (a) only on the piping serving that individual unit.

(5) In any existing commercial or industrial building that has fuel gas piping supplying the building and the building is sold on or after December 1, 2006. The devices specified in subsection (a) shall be installed before the parties to the sale enter into an agreement for sale, or before the close of escrow when an escrow agreement has been executed in connection with the sale. (Ords. 2006-44 §2, 2004-27 § 2, 2000-11 §2.)

SECTION III. EFFECTIVE DATE. This ordinance becomes effective 30 days after passage, and within 15 days after passage shall be published once with the names of supervisors voting for or against it in the Contra Costa Times, a newspaper published in this County.

PASSED on ____October 3 2006_____, by the following vote:

AYES: Uilkema, Piepho, DeSaulnier and Gioia
NOES: None
ABSENT: Glover
ABSTAIN: None

ATTEST: JOHN CULLEN,
Clerk of the Board of Supervisors
and County Administrator

Board Chair

By: _____ [SEAL]
Deputy

TLG:
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Appendix B

ADDITIONAL FINDING OF NEED FOR STRICTER CONSTRUCTION STANDARDS DUE TO LOCAL CONDITIONS

I. Geological and Topographical

A. Seismicity

1. Conditions

Contra Costa County is located in Seismic Risk Zone 4, which is the worst earthquake area in the United States. Buildings and other structures in Zone 4 can experience major seismic damage. Contra Costa County is in close proximity to numerous earthquake faults including the San Andreas Fault and contains all or portions of the Hayward, Calaveras, Concord, Antioch, Mt. Diablo, and other lesser faults. A 4.1 earthquake with its epicenter in Concord occurred in 1958, and a 5.4 earthquake with its epicenter also in Concord occurred in 1955. The Concord and Antioch faults have a potential for a Richter 6 earthquake and the Hayward and Calaveras faults have the potential for a Richter 7 earthquake. Minor tremblers from seismic activity are not uncommon in the area.

A study released in 1990 by the United States Geological Survey says that there is a 67% chance of another earthquake the size of Loma Prieta during the next 30 years, and that the quake could strike at any time, including today. Scientists, therefore, believe that an earthquake of a magnitude 7 or larger is now twice as likely to happen as to not happen.

Interstates 680, 80, 580 and State Route 4 run the length throughout Contra Costa County. These interstates and state routes divide the County into a west, south, north and east. An overpass or undercrossing collapse would significantly alter the response route and time for responding emergency equipment. This is due to limited crossings of the interstate and that in some areas there is only one surface street, which runs parallel to the interstate, which would be congested during a significant emergency.

Earthquakes of the magnitude experienced locally can cause major damage to electrical transmission facilities and to gas lines in buildings, which in turn start fires throughout the

County. The occurrence of multiple fires will quickly deplete existing fire department resources; thereby reducing and/or delaying their response to any given fire.

Fires following earthquakes can add substantially to the community wide destruction initiated by strong earthquakes and the associated after shocks. Fire loss directly attributable to the earthquake begins immediately following the earthquake and can continue for days afterward.

One cause of post earthquake fires is overturned gas appliances, such as dryers, unstrapped water heaters, furnaces and gas ranges. Contra Costa County currently requires that a motion sensitive or excess flow valve be installed downstream of the gas meter and an excess flow valve at the point of the appliance in new construction or under certain conditions when a building is altered. This leaves other structures vulnerable to explosions and fires after an earthquake. Requiring gas shut-off valves to be installed on all buildings prior to close of escrow when an escrow agreement has been executed in connection with a sale in Contra Costa County would further reduce the risk of explosion and fire, thereby reducing property damage and injury to humans.

(a) Impact

A major earthquake could severely restrict the response of all Contra Costa County Fire Districts and their capability to control fires involving buildings of wood frame construction, with ordinary roofing materials and flammable exteriors, or with large interior areas not provided with automatic smoke and fire control systems. Also, when buildings not equipped with earthquake structural support move off their foundations, gas pipes may rupture. Fires develop from line ruptures and spread from house to house, causing an extreme demand for fire protection resources.

2. Soils

(a) Conditions

The area is replete with various soils, which are unstable, clay loam and alluvial fans being predominant. These soil conditions are moderately to severely prone to swelling and shrinking, are plastic, and tend to liquefy.

Throughout Contra Costa County, the topography and development growth has created a network of older, narrow roads. These roads vary from gravel to asphalt surface and vary in percent of slope, many exceeding twenty (20) percent. Several of these roads extend up through the winding passageways in the hills providing access to remote, affluent housing subdivisions. The majority of these roads are private with no established maintenance program. During inclement weather, these roads are subject to rock and mudslides, as well as down trees, obstructing all vehicle traffic. It is anticipated that during an earthquake, several of these roads would be unpassable so as to prevent fire protection resources from reaching fires cause by gas line ruptures or other sources.

3. Topographic

(a) Conditions

i. Vegetation

Highly combustible dry grass, weeds, and brush are common in the hilly and open space areas adjacent to built-up locations six (6) to eight (8) months of each year. Many of these areas frequently experience wildland fires, which threaten nearby buildings, particularly those with wood roofs, or sidings. This condition can be found throughout Contra Costa County, especially in those developed and developing areas of the County. Earthquake gas fires due to gas line ruptures can ignite grasslands and stress fire district resources.

(b) Impact

The above local geological and topographical conditions increase the magnitude, exposure,

accessibility problems, and fire hazards presented to the County fire resources. Fire following an earthquake has the potential of causing greater loss of life and damage than the earthquake itself. Most earthquake fires are created by natural gas developed from gas line ruptures. Hazardous materials, particularly toxic gases, could pose the greatest threat to the largest number, should a significant seismic event occur. Public safety resources would have to be prioritized to mitigate the greatest threat, and may likely be unavailable for smaller single dwellings that were caused by broken gas lines.

Other variables may tend to intensify the situation:

1. The extent of damage to the water system
2. The extent of isolation due to bridge and/or freeway overpass collapse.
3. The extent of roadway damage and/or amount of debris blocking the roadways.
4. Climatic condition (hot, dry weather with high winds).
5. Time of day will influence the amount of traffic on roadways and could intensify the risk to life during normal business hours.
6. The availability of timely mutual aid or military assistance.
7. The large portion of dwellings with wood shake or shingle coverings could result in conflagrations.
8. The large number of dwellings that slip off their foundations and rupture gas lines resulting in further conflagrations.

A. Climatic

1. Precipitation and Relative Humidity

(a) Conditions

Precipitation ranges from 15 to 24 inches per year with an average of approximately 20 inches per year. Ninety-six (96) percent falls during the months of October through April and four (4) percent from May through September. This is a dry period of at least five (5) months each year. Additionally, the area is

subject to occasional drought. Relative humidity remains in the middle range most of the time. It ranges from forty-five (45) to sixty-five (65) percent during spring, summer, fall, and from sixty (60) to ninety (90) percent in the winter. It occasionally falls as low as fifteen (15) percent.

(b) Impact

Locally experienced dry periods cause extreme dryness of untreated wood shakes and shingles on buildings and non-irrigated grass, brush and weeds, which are often near buildings with wood roofs and sidings. Such dryness causes these materials to ignite very readily and burn rapidly and intensely. Gas fires due to gas line ruptures can also spark and engulf a single family residence during these dry periods.

Because of dryness, a rapidly burning gas fire or exterior building fire can quickly transfer to other buildings by means of radiation or flying brands, sparks or embers. A small fire can rapidly grow to a magnitude beyond the control capabilities of the Fire District resulting in an excessive fire loss.

2. Temperature

(a) Conditions

Temperatures have been recorded as high as 114° F. Average summer highs are in the 75° - 90° range, with average maximums of 105° F in some areas of unincorporated Contra Costa County.

(b) Impact

High temperatures cause rapid fatigue and heat exhaustion of firefighters, thereby reducing their effectiveness and ability to control large building, wildland fires, and fires caused by gas line ruptures.

Another impact from high temperatures is that combustible building material and non-irrigated weeds, grass and brush are preheated, thus causing these materials to ignite more readily and burn more

rapidly and intensely. Additionally, the resultant higher temperature of the atmosphere surrounding the materials reduces the effectiveness of the water being applied to the burning materials. This requires that more water be applied, which in turn requires more fire resources in order to control a fire on a hot day. High temperatures directly contribute to the rapid growth of fires to an intensity and magnitude beyond the control capabilities of the Fire Districts in Contra Costa County.

1. Winds

(a) Conditions

Prevailing winds in many parts of Contra Costa County are form the north or northwest in the afternoons. However, winds are experienced from virtually every direction at one time or another. Velocities can reach fourteen (14) mph to twenty-three (23) mph ranges, gusting to twenty-five (25) to thirty-five (35) mph. Forty (40) mph winds are experienced occasionally and winds up to fifty-five (55) mph have been registered locally. During the winter half of the year, strong, dry, gusty winds from the north move through the area for several days, creating extremely dry conditions.

(b) Impact

Winds such as those experienced locally can and do exacerbate fires, both interior and exterior, to burn and spread rapidly. Fires involving non-irrigated weeds, grass, brush, and fires caused by gas line ruptures can grow to a magnitude and be fanned to an intensity beyond the control capabilities of the fire services very quickly even by relatively moderate winds. When such fires are not controlled; they can extend to nearby buildings, particularly those with untreated wood shakes or shingles.

Winds of the type experienced locally also reduce the effectiveness of exterior water streams used by all Contra Costa County Fire Districts on fires involving large interior areas of buildings, fires which have vented through windows and roofs due to inadequate

built-in fire protection and fires involving wood shake and shingle building exteriors. Local winds will continue to be a definite factor toward causing major fire losses to buildings not provided with fire resistive roof and siding materials and buildings with inadequately separated interior areas, or lacking automatic fire protection systems, or lacking proper gas shut-off devices to shut off gas when pipes are ruptured. National statistics frequently cite wind conditions, such as those experienced locally, as a major factor where conflagrations have occurred.

2. Summary

These local climatic conditions affect the acceleration, intensity, and size of fire in the unincorporated areas of Contra Costa County. Times of little or no rainfall, of low humidity, and high temperatures create extremely hazardous conditions, particularly as they relate to wood shake and shingle roof fires and conflagrations. The winds experienced in Contra Costa County can have a tremendous impact upon structure fires. During wood shake and shingle roof fires, or exposure fires, or gas fires, winds can carry sparks and burning brands to other structures, thus spreading the fire and causing conflagrations. In building fires, winds can literally force fires back into the building and can create a blow torch effect, in addition to preventing "natural" ventilation and cross-ventilation efforts.

B. Automatic Gas Shut-Off Devices to Prevent Gas Fires Caused by Pipeline Ruptures and Breaks

1. Devices

(a) Types of Devices

Two types of automatic shut-off devices are available to prevent gas from escaping from broken or ruptured pipes caused by earthquakes or other manmade reasons.

(1) Seismic Gas Shut-off devices operate by motion created by earthquakes. In the event of gas pipe ruptures caused by earthquakes, these devices can stop gas from escaping into buildings, thus preventing fires and explosions.

Earthquake seismic valves are those valves approved by the Department of the State Architect of California (DSA) as devices capable of preventing the release of gas due to gas line ruptures caused by earthquakes. Seismic valves to be used in California must pass a certification program administered by the DSA.

(2) Excess flow valves are devices operated by pressure or excess flow. In the event of a gas line rupture due to an earthquake, these devices can stop the flow of gas from escaping into buildings, thus preventing fires.

The design of the device shall provide a proven method to provide automatically for expedient and safe gas shutoff in an emergency. The design of the device provides a capability for ease of consumer or owner resetting in a safe manner. The device can be certified by the State Architect or the operational and functional design of the device meets or exceeds the device certified by the Office of the State Architect. The determination of whether the operational and functional design of the device is at least equal to the device certified by the State Architect may be made by one of the following: the Independent Laboratory of the International Approval Services (IAS), Underwriter's laboratory (UL), International Association of Plumbing and Mechanical Officials (IAPMO), or other recognized listing and testing agency.

(b) Need for Maximum Protection

(1) Since there are many devices having different means of preventing gas escape which are on the private market, all of which can potentially protect buildings from fires and explosions due to gas line ruptures, it is important to provide as many options to the public for their use and protection. Devices which prevent gas escape from gas line breaks and ruptures should be approved by public or private non-profit

agencies regarded as credible in their fields, as the above.

2. Fire Protection Resources Preserved

(a) By requiring automatic gas shut-off valves in all new building construction and in certain remodeled buildings, the likelihood of fire and explosion will be reduced, thus not taxing fire resources of County Fire Districts.

(b) In addition, there are several studies that have been conducted by public and private agencies which recognize that the use of automatic gas shut-off valves will reduce the amount of damage to property and loss of lives in earthquakes.

Gas Shut-Off Valve Survey

Jurisdiction	Type of Valve Required	When Required				Where Required	
		New Costrucution	Remodeling	Addition	Resale	Downstream of Meter	Point of Appliance
City of Brentwood	Seismic or Excess Flow	X	X	X		X	
City of Clayton	Seismic or Excess Flow	X	X	X		X	X
City of Hercules	Seismic or Excess Flow	X	X	X		X	
City of Lafayette	Seismic or Excess Flow	X	X	X		X	
City of Los Angeles	Seismic	X	X	X	X	X	
City of Martinez	Seismic or Excess Flow	X	X	X		X	
City of Orinda	Seismic or Excess Flow	X	X	X		X	
City of Pittsburg	Seismic or Excess Flow	X	X	X			
City of West Hollywood	Seismic	X	X	X	X	X	
Town of Moraga	Seismic or Excess Flow	X	X	X		X	
Alameda County	Excess Flow	X	X	X		X	
Contra Costa County	Seismic or Excess Flow	X	X	X		X	X
Marin County	Seismic or Excess Flow	X	X	X		X	

Appendix C

How a Gas Line Works

CSST SYSTEM
(Corrugated Stainless Steel Tubing)
HARD PIPE SYSTEM
APPLIANCE VALVES CONNECT TO THE MANIFOLD IN ATTIC
CSST LINES DROP DOWN TO GAS APPLIANCES
METER VALVES ARE INSTALLED IMMEDIATELY AFTER (DOWNSTREAM OF) THE BY-PASS TEE
GAS FLEX CONNECT LINE
TO OTHER GAS APPLIANCES
FOR MAXIMUM PROTECTION, ALL GAS APPLIANCES SHOULD HAVE A SAFETY VALVE
METER VALVES ARE INSTALLED IMMEDIATELY AFTER (DOWNSTREAM OF) THE BYPASS TEE
GAS FLEX CONNECT LINE
APPLIANCE SAFETY VALVES ARE INSTALLED WHERE THE HARD PIPE CONNECTS TO THE APPLIANCE GAS FLEX LINES

Gas Shut Off Comparison Graph

Valves	Manuel	Seismic	Excess
Operation	Use wrench	senses quake	senses gas
Benefits	Can shut off gas in case of quake or too much gas	automatically shuts off gas in case of quake	automatically shuts off gas in case of excess gas
Drawbacks	Someone needs to be present	will only shut off if above a 5.1 Richter quake	will only shut off if above excess level

Location: Martinez Office
651 Pine Street, 3rd Floor, North Wing
Martinez, CA 94553
Phone:
(925) 646-4108
Hours:
7:30 am to 5:00 pm, Monday - Friday;
closed 1st, 3rd & 5th Fridays of the month
http://www.co.contra-costa.ca.us/depart/bi/

Location: Lamorinda Office
3685 Mt. Diablo Blvd., Ste. 120
Lafayette, CA 94549
Hours of Operation:
Monday - Thursday, 8:00 A.M.- 12:00 P.M.
and 1:00 P.M. TO 5:00 P.M
Friday, 8:00 A.M. - 12:00 P.M. and 1:00 P.M.
TO 4:00 P.M
Phone: (925) 299-0263

Location: East County Office
1191 Central Boulevard, Ste. C
Brentwood, CA 94513
Hours of Operation:
Monday - Friday, 8:00 A.M.- 12:00 P.M. and
1:00 P.M. TO 4:30 P.M.
Phone: (925) 427-8850

For more information on approved gas shut off devices call the California Division of the State Architect at (916)445-8100

Who Burnt The House Down?

The Importance of Gas Shut Off Valves

Every year around 400 homes are destroyed due to natural gas (Housing and Urban Development 2001). Among this devastation includes 5,700 home fires and 50 million lost to property damage (U.S. Home Reports 1993-1997). Home fires due to natural gas are avoidable and can be stopped by homeowners everywhere. One way to keep your house safe is to invest in a gas shut off valve. This valve is used to cut off the flow of gas to the house in the occurrence of a natural disaster such as an earthquake or break in the gas line.

Explosion at the Park Regency

A True Story

In 2002 near the Pleasant Hill Bart Station a devastating catastrophe took place. In unit 224 of the Park Regency apartments a natural gas explosion occurred from a presumable electrical spark. Because of this incident fifty or so residents were relocated and many rooms were declared unlivable.

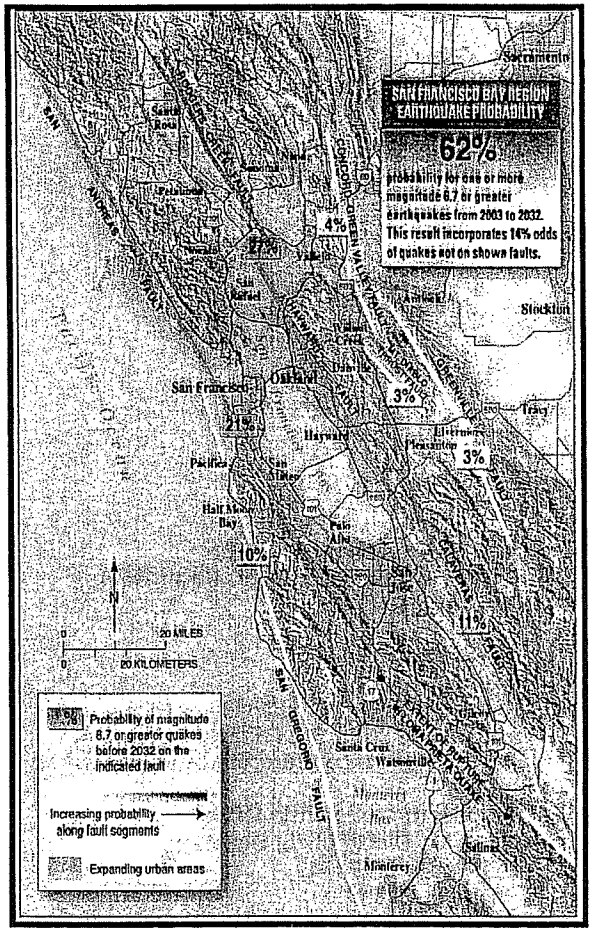
Two Type so Valves Outside the House

Seismic Valve

A seismic valve is triggered by the ground motion due to earthquakes. When an earthquake is about 5.1 on the Richter scale or higher, the gas will automatically shut off. This valve has been required by City of L.A. and is a popular choice amongst homeowners.

Excess Flow Valve

An excess flow valve will shut off the flow of gas when it detects a higher flow rating than the allotted maximum to the house. For example if there is a break in the line and gas surges through your home, the excess flow valve will turn it off.



An Earthquake *Is* Coming Soon

While looking towards new data and developing ideas of earthquake occurrence, the U.S. Geological Survey (USGS) and other known scientists now conclude that there is a **62% probability of at least one magnitude 6.7 or greater quake hitting somewhere in the San Francisco Bay Area before 2032.** Because of our proximity to the moving plates of the San Andreas Fault and Hayward Fault, this theory is more than just any conjecture. However, although scientists have identified the future catastrophe, it is our job now to prepare for the worst.

One Type of Valve Inside the House

Excess flow valves should be installed at each gas appliance (i.e. gas stove, water heater, dryer, furnace) to shut off gas at the source of potential leaks.

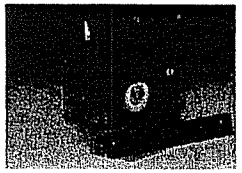
How Much Will It Cost?

To install a gas shut off valve outside your home it is estimated at around 400 dollars by any professional in the North Contra Costa area. To install a gas shut off valve by yourself is around 25 dollars and the kit can be found at various Hardware stores around the county. Inside the house, the cost for an excess flow valve at a gas appliance is approximately 5 to 15 dollars.

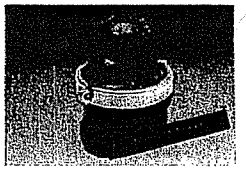
Which Gas Shut Off Valve Should I Buy?

There are a number of approved valves by the California Division of State Architect that are advised for homeowners to invest in. A few of the most popular are:

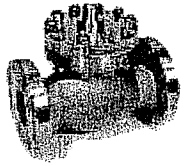
Seismic Valve



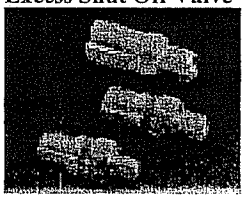
Seismic Valve



Excess Shut off Valve



Excess Shut Off Valve



Appendix E

CONTRA COSTA COUNTY
BUILDING INSPECTION DEPARTMENT
651 Pine Street, N. Wing – 3rd Floor
Martinez, CA 94553
Telephone: 646-4108 Fax: 646-1219

GAS SHUT-OFF VALVE REQUIREMENTS

Contra Costa County Ordinance Code chapter 718-8 requires gas shut-off valves be installed downstream of the meter and at the point of appliance on designated buildings within the County. Gas shut-off valves are designed to automatically shut off the power supply of natural gas to a building to prevent a fire or explosion due to accumulation of gas in the building in the event of a major earthquake.

The provisions of this Ordinance apply to:

1. All new buildings constructed after April 21, 2000.
2. Commercial building performing additions, alterations or repairs with a building permit issued after November 6, 2006 and a valuation of greater than $15, 000.
3. Residential building performing additions, alterations or repairs with a building permit issued after November 6, 2006 and a valuation of greater than $15, 000.
4. All buildings sold in the County after January 2, 2007. Gas shut-off valves must be installed downstream of the meter and at the point of appliance prior to entering into an agreement for sale, or prior to close of escrow when an escrow agreement has been executed in connection with the sale.
5. Alterations or additions to the fuel gas piping system when it involves the replacement of the gas meter.

Provisions of the ordinance allow for the installation of the valves to an individual unit or tenant space in a condominium or commercial building when that unit is served by separate gas meters for buildings that are altered, added to or sold.

A plumbing permit from the Building Inspection Department is required for the installation. The cost of a plumbing permit is $62.25.

To request a permit application or schedule an inspection of installed valves, call (925) 646-4108.

Appendix E

CONTRA COSTA COUNTY
BUILDING INSPECTION DEPARTMENT
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APPROVED GAS SHUT-OFF VALVES

For a list of the approved Gas shut-off valves, please see the California Division of the State Architect website at:
http://www.dsa.dgs.ca.gov/gas_shutoff.htm

The Division of the State Architect (DSA) is certifying two different types of gas shut-off valves for residential use: 1) earthquake sensitive gas shut-off valves (ESV) and 2) excess flow automatic gas shut-off valves (EFV). DSA derives its authority to certify these valves from the Health and Safety Code.

For questions regarding the state certification program for gas shut-off valves, contact Paul Vetter, (916)324-1280, paul.vetter@dgs.ca.gov.

ANSWERS TO FREQUENTLY ASKED QUESTIONS

Q. Where can the valves be purchased?
A. From supply retailers, plumbing contractors, or the valve manufacturers listed on the California Division of the State Architect website.

Q. What if I buy a condominium in a building with multiple units?
A. The ordinance requires that all gas piping serving that unit be protected by a gas shut-off valve and gas shut-off valves at the point of appliance be installed prior to close of escrow when an escrow agreement has been executed in connection with the sale after January 2, 2007.

Q. What do I do if my building does not have a fuel gas piping system?
A. This ordinance only applies to buildings with fuel gas piping systems.

Q. My property went into escrow because of a refinance but there no change in ownership. Are gas shut-off valves still required?
A. No, they are not required, but you might like to have them installed for added protection in the event of an earthquake.

Chronology of Chapter 3-9, Gas Shut-Off Devices, LMC

March 21, 2000	Contra Costa County Board of Supervisors adopts Ordinance No. 2000-11 adding Chapter 718-8 to the Contra Costa County Ordinance Code to require the installation at gas utility meters of excess flow gas shut-off devices (non-motion sensitive) or gas shut-off devices that are activated by motion.
July 10, 2000	City Council adopts Ordinance No. 515, adopting by reference portions of the Ordinance Code of Contra Costa County that adds Chapter 718-8 to the Contra Costa County Ordinance Code to require the installation at gas utility meters of excess flow gas shut-off devices (non-motion sensitive) or gas shut-off devices that are activated by motion.
July 13, 2004	Board of Supervisors adopts Ordinance No. 2004-27 requiring gas shut-off devices at gas appliances in certain new construction and remodeling of structures. Ordinance No. 2004-27 amends the previous ordinance to require installation of gas shut-off valves at the natural gas appliance as well as at the gas utility meter.
April 10, 2006	City Council adopts Ordinance No. 555 adopting County Ordinance No. 2004-27 of the County of Contra Costa. Ordinances 515 and 555 are added to the Lafayette Municipal as Chapter 3-9, Gas Shut-Off Devices.
October 3, 2006	Board of Supervisors amends current gas shut-off valve regulations by adopting Ordinance No. 2006-44 requiring the installation of gas shut-off devices in existing residential, commercial, and industrial buildings prior to the sale of those buildings or when additions or alterations valued at more than $15,000 are made.
April 9, 2007	Lafayette Ordinance No. 564 to amend Chapter 3-9 and adopt County Ordinance No. 2006-44 is introduced and continued to April 23, 2007 for a public hearing and adoption.
April 23, 2007	The City Council requests that Ordinance No. 564 be referred to the Lafayette Emergency Preparedness Commission (EPC) for review and comment. The City Council requests that the EPC consider the following points: • Do regulations requiring installation of gas shut-off devices serve the public good and promote public health and safety? • If gas shut-off devices are required, are they needed at both the gas utility meter and each gas appliance? • Are the thresholds (building permit valuation) for requiring installation appropriate for the City of Lafayette? • Should point of sale be a threshold for requiring installation of gas shut-off devices?
July 20, 2007	EPC completes its review of County Ordinance 2006-44, City Ordinance 564, and Chapter 3-9, LMC. They conclude that based on maximum public safety: • Seismically activated valves should not be installed at all. • An excess flow valve is only needed at each gas-fueled appliance. Excess flow valves are not likely to be of great benefit when installed just

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downstream of the gas meter but will not do harm. Because they operate on excess flow, a tripped valve is a positive indication that a rupture has occurred.

- Excess flow valves at the appliance junctions are highly beneficial. Repair or replacement of the broken tubing may be done by the resident, and the appliance restored to normal without needing the services of PG&E.
- The point of sale requirement as recommended by the County should not be adopted.
- Adopt changing the building permit valuation threshold from $50,000 to $15,000 for additions and alternations as recommended by the County.

October 22, 2007 — Lafayette Ordinance No. 564 is re-introduced. Ordinance No. 564 is revised to reflect the recommendations of the EPC of July 20, 2007. The City Council approves the following motions.

ACTION: It was M/S/C (Tatzin/Anderson) to introduce Ordinance No. 564 revising Chapter 3-9, Gas Shut-Off Devices of the Lafayette Municipal Code, and directing the City Attorney to make necessary modifications of Section 3-905 (a)(1) to replace the word "shall" with "may" with the option of making (a)(2) mandatory. Vote: 4-0-1 (Ayes: Federighi, Andersson, Tatzin, Anderson; Noes: None; Absent: Anduri).

ACTION: It was M/S/C (Tatzin/Anderson) that staff notify the Board of Realtors of the ordinance's adoption and direct them to begin the educational program as agreed upon, continue the matter to November 13, 2007, and from on year's date of adoption of the education program, for them to report back to the City Council regarding the number of installations voluntarily installed due to the educational outreach efforts; and at that time for the Council to determine consideration of modification of the ordinance. Vote: 4-0-1 (Ayes: Federighi, Andersson, Tatzin, Anderson; Noes: None; Absent: Anduri).

November 10, 2007 — Planning staff receives correspondence from the Board of Realtors expressing concerns about the Council's direction that they begin an education campaign. They can offer monetary support for the costs of brochures, news ads, etc. and can contact contractors but they do not have the jurisdiction to contact residents or convey information without the participation and approval of the City.

November 13, 2007 — City Council conducts a public hearing on Ordinance No. 564 which was revised per the Council's direction of October 22, 2007. At the meeting, a member of the public raises an objection to the installation of gas shut-off devices as currently required by Chapter 3-9, LMC. Due to this comment and because an educational campaign by the Board of Realtors is now in question, the Council directs the EPC to review and consider these two issues and return with their comments and recommendations at a future meeting.

February 13, 2008 — The EPC completes their review as requested by the Council and provides their comments to Planning staff.

February 25, 2008 — Planning staff requests that Ordinance No. 564 be withdrawn to allow for new public notice.

February 13, 2008

LAFAYETTE EMERGENCY PREPAREDNESS COMMISSION
REPORT AND RECOMMENDATIONS FOR PROPOSED ORDINANCE 564

Report

At the request of the Lafayette City Council, the Lafayette Emergency Preparedness Commission has investigated the possibility of mounting an educational campaign enticing Lafayette citizens to install automatic gas valves compliant with the proposed new gas valve requirements, Ordinance 564, in lieu of requiring a point-of-sale installation.

The Commission is most appreciative of the active involvement of the Contra Costa Association of Realtors in this project, in its offer to fund brochures for the proposed education campaign. Inquiry was made of the Contra Costa County Consolidated Fire District as to whether it would create and distribute brochures about household fire safety that would include automatic gas shutoff valves. The District declined. We have determined that, even with the participation of the Board of Realtors, this project is outside of our area of competence.

Recommendations

The Lafayette Emergency Preparedness Commission recommends:

1) that a public education campaign not be initiated and coordinated by this Commission;

2) that the language for draft Ordinance 564 dated October 22, 2007, be changed as follows:

In 3-905(a)(1) the wording "shall be installed downstream...." be changed to "may be installed downstream...".

In 3-905(a)(2) the wording "at each connection of a gas appliance to a gas line..." be changed to "at each connection of a non-fixed gas appliance to a gas line...".

2) that a point-of-sale requirement for real estate transactions be included in the draft Ordinance 564 of October 22, 2007. Further recommendation is that the point of sale language be placed as Chapters 3-905(b) (4) and (5), and that the language be that in County Ordinance 2006-44, to wit:

(4) In any existing residential building that has fuel gas piping supplying the building and the building is sold on or after _____, 2008. The devices specified in subsection (a) shall be installed before the parties to the sale enter into an agreement for sale, or before the close of escrow

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when an escrow agreement has been executed in connection with the sale. The sale of an individual condominium unit in a building requires installation of the devices specified in subsection (a) only on the piping serving that individual unit.

(5) In any existing commercial or industrial building that has fuel gas piping supplying the building and the building is sold on or after _____, 2008. The devices specified in subsection (a) shall be installed before the parties to the sale enter into an agreement for sale, or before the close of escrow when an escrow agreement has been executed in connection with the sale.

Respectfully submitted,

Fred H.G. Lothrop, Chair
For the Emergency Preparedness Commission.

GAS SHUT-OFF DEVICES STATEMENT OF COMPLIANCE
LOCAL ADDENDA

As required by City of Lafayette Ordinance No. 564 and
Chapter 3-9, Gas Shut-Off Devices of the Lafayette Municipal Code (LMC)

Property Address: _____

LOCAL REQUIREMENTS: City of Lafayette Ordinance No. 564 and Chapter 3-9, Gas Shut-Off Devices (LMC) require that approved gas shut-off devices be installed in existing residential, commercial and industrial buildings prior to the sale of those buildings. An "approved gas shut-off device" is ~~either a seismic gas-shut-off device (motion sensitive) or~~ an excess flow gas-shut-off device (non-motion sensitive) which meets or exceeds the requirements of devices certified by the Office of the State Architect for installation in the state of California. ~~The following devices shall be installed at the following locations in buildings. An approved seismic gas shut-off device (motion sensitive) or an~~ approved excess flow gas shut-off device (non-motion sensitive) may~~shall~~ be installed downstream of the gas utility meter at the beginning of each rigid gas piping system that serves any of the building. An approved excess flow gas shut-off device (non-motion sensitive) shall be installed at each connection of a non-fixed gas appliance to a gas line within the building. A non-fixed gas appliance refers to a gas appliance that is not required by State or local ordinance or by the manufacturer's listing to be braced, anchored, strapped or fastened in place.

EXECEPTIONS: City of Lafayette Ordinance No. 564 and Chapter 3-9, Gas Shut-Off Devices (LMC) render the following exemptions: (a) Gas shut-off devices are not required to be installed downstream of the gas utility meter where gas shut-off devices have been installed by the gas utility or a contractor authorized by the gas utility upstream of the gas utility meter and downstream of the meter service regulator and the installations are in accordance with this chapter and with the manufacturer's specifications. (b) Gas shut-off devices installed on a building before the effective date of this chapter are exempt from the requirements of this section provided they remain installed on the building or structure and are maintained for the life of the building or structure. (c) Gas shut-off devices installed on a gas distribution system owned or operated by a public utility are not subject to the requirements of this chapter (Health and Safety Code Section 19201 (b)). (d) This chapter does not apply to mechanical or process equipment used in manufacturing. (e) This chapter does not apply to gas shut-off devices installed within gas lines (Health and Safety Code Section 19204).

CERTIFICATION: Seller represents that the property, as of the Close of Escrow, will be in compliance with City of Lafayette Ordinance No. 564 and Chapter 3-9, Gas Shut-Off Devices (LMC) by having an approved excess flow gas shut-off device installed ~~: (1) downstream of the gas utility meter at the beginning of each rigid gas piping system serving any buildings; and (2)~~ at each connection ~~or a~~ of a non-fixed appliance to a gas line within any building.

Seller _____ Date _____
(Print Name)

Seller _____ Date _____
(Print Name)

The undersigned hereby acknowledges receipt of a copy of this document

Buyer _____ Date _____
(Print Name)

Buyer _____ Date _____
(Print Name)

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CC-5

Gas Shut-Off Valve Ordinance

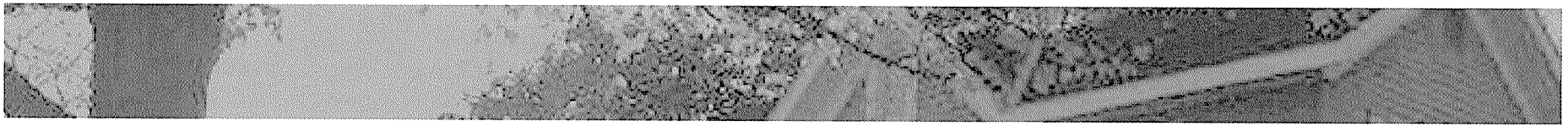
Implementation Considerations

The Options...

Point of Sale Requirement

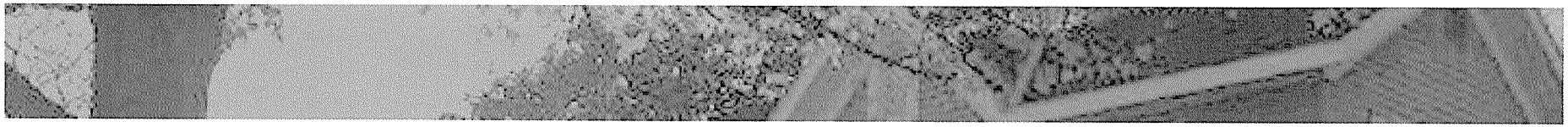
vs

Retrofit at Permit Requirement

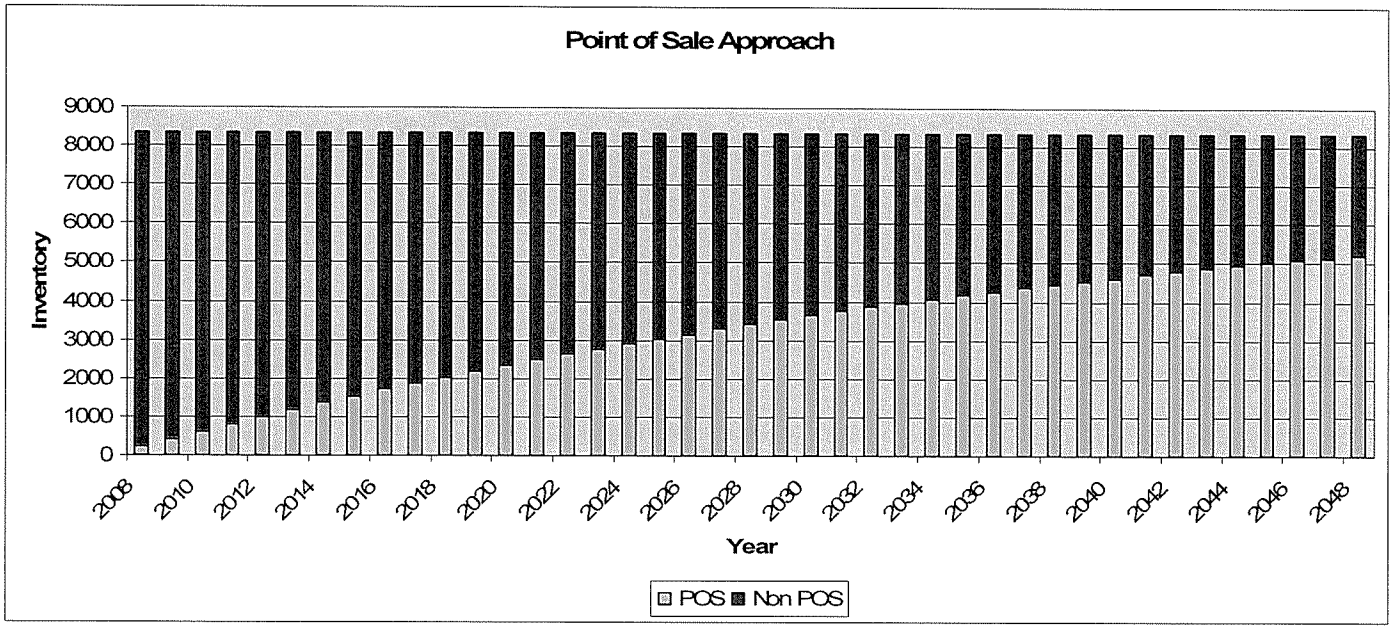


Point of Sale

- No method to track compliance
- *Restricts commerce* by delayed or derailed sales transactions
- Hasty, last-minute installations pose possible *public safety hazard*
- *Very slow implementation*



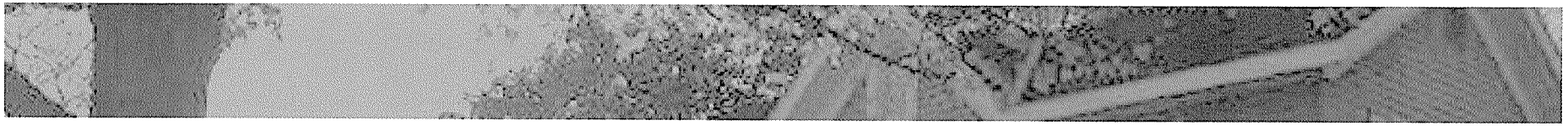
Point of Sale Implementation



- 218 Resale Transactions in 2007*
- 60% implementation after *40 years***

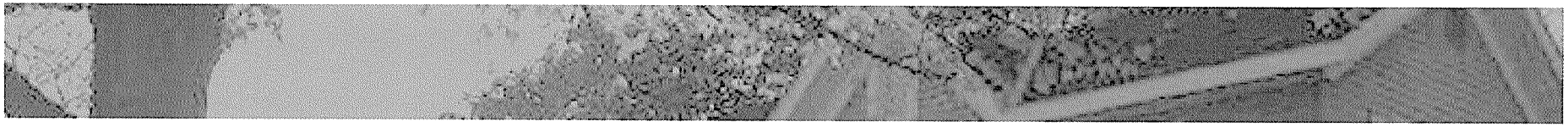
** SOURCE: DataQuick*

*** Based on California Association of REALTORS® projected sales figures*

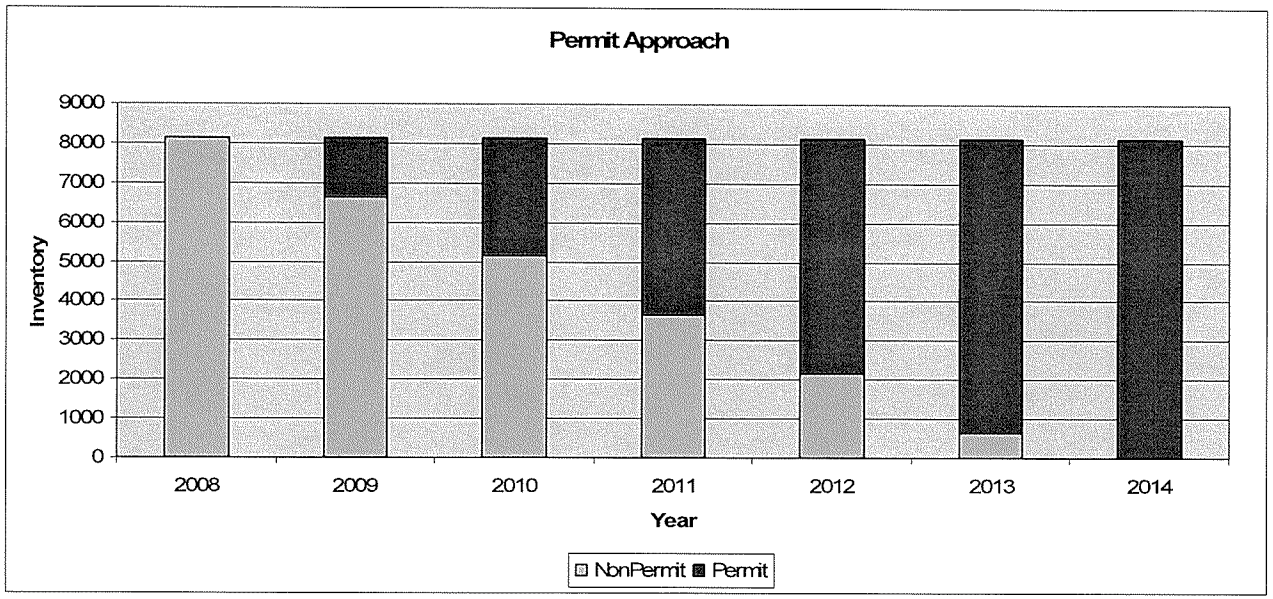


Retrofit at Permit Implementation

- Administered by county building department
- Similar to smoke detector requirement at permit process
- Inspection process ensures proper & safe installation
- Ability to track compliance
- *Faster implementation*



Retrofit at Permit Implementation



- 1,654 Permits Issued in Lafayette in 2007*
- Possible full implementation after 6 *years*

** Contra Costa County Building Department*